

**Thrift Bulletin****TB 13a-1**Handbooks: **Thrift Activities**Subject: **Structured advances****Section: 520****Structured Advances**

**Summary:** This Thrift Bulletin provides supervisory guidelines for savings associations on the prudent management of structured advances. This Bulletin also provides guidance on reporting structured advances on Schedule CMR of the Thrift Financial Report.

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In recent years, structured advances have become an increasingly popular funding source for savings institutions<sup>1</sup>. Because structured advances often have complex embedded options, the use of these instruments can raise safety and soundness concerns, particularly if management does not sufficiently understand their price and interest rate sensitivity. A significant portion of outstanding structured advances has been issued by the the Federal Home Loan Banks (FHLB); however, other issuers provide structured advances. For example, reverse repurchase agreements with Wall Street securities firms, when they contain embedded options, are structured advances. This Bulletin provides supervisory guidance to management on the prudent management of structured advances.

**Guidelines for Management**

Management should exercise diligence in assessing the risk associated with structured advances. As a matter of sound practice, prior to obtaining a structured advance, an institution should:

- (a) review the terms and conditions of the advance and evaluate the instrument's price sensitivity;
- (b) ensure that the proposed transaction is consistent with the institution's portfolio objectives and liquidity needs; and,

<sup>1</sup> For the purpose of this Bulletin, structured advances include advances with embedded options or derivative-like features where the advances' coupon, average life, or redemption value is dependent on a reference rate, an index, or a formula. The term "structured advance" includes, but is not limited to, puttable and callable advances, convertible advances, variable-rate advances with embedded caps, floors, or collars, step-up variable-rate advances, and amortizing advances.

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- (c) conduct a pre-purchase portfolio sensitivity analysis for *any* “significant transaction” involving structured advances. A “significant transaction” is any transaction that might reasonably be expected to increase the institution’s Sensitivity Measure by more than 25 basis points. Prior to undertaking any significant transaction, management should conduct an analysis of the incremental effect of the proposed transaction on the interest rate risk profile of the institution. The analysis should show the expected change in the institution’s net portfolio value (with and without the transaction) that would result from an immediate parallel shift in the yield curve of plus and minus 100, 200, and 300 basis points. In general, the institution should conduct its own analysis. It may, however, rely on an analysis conducted by either a qualified independent third party, or by a FHLB, provided the values of embedded options are adequately captured and that management understands the analysis and its key assumptions.

*OTS may view as an unsafe or unsound practice the use of structured advances by any savings association that does not have adequate risk measurement, monitoring, and control systems.*

## Reporting Guidelines

It is expected that starting with the September 2000, reporting cycle, each institution that files Schedule CMR should report structured advances using one of the reporting methods described below. Examiners will have broad discretion to require a particular reporting method for structured advances. Schedule CMR will be revised as necessary for September 2000.

1. **Reporting Guidelines for Institutions Above \$1 Billion in Assets.** Institutions with more than \$1 billion in assets should report the estimated market value of each structured advance individually on Schedule CMR, Supplemental Reporting of Assets/Liabilities.
2. **Reporting Guidelines for Institutions Below \$1 Billion in Assets.** Unless otherwise directed by their examiners, institutions may report structured advances by providing the advances’ features (i.e., outstanding balance, coupon, remaining maturity), on Schedule CMR, cells 675 through 715 (for fixed-rate, fixed-maturity advances), and on Schedule CMR, Supplemental Reporting for Assets/Liabilities (for variable-rate, fixed-maturity advances).

OTS encourages all institutions with less than \$1 billion in assets, especially those that have more than 5 percent of liabilities in structured advances, to report the estimated market value of each structured advance for the seven interest rate scenarios on Schedule CMR, Supplemental Reporting of Assets/Liabilities.

Structured advances that are reported based on their market values should **not** be reported based on the advances’ features (i.e., outstanding balance, coupon, remaining maturity), either on Schedule CMR, cells 675 through 715, or on Schedule CMR, Supplemental Reporting for Assets/Liabilities.

Management may estimate market values using any reasonable, generally accepted methodology, or may rely upon value estimates of a qualified, independent third party or FHLB. Management should ensure the value of embedded options are appropriately captured and that management understands the analysis and its key assumptions.

## Examiner Guidance

For institutions that report market value estimates of structured advances, OTS examiners should review the valuation methodology. At a minimum, examiners should determine whether the institution:

- (a) Estimates and reports the market values of each structured advance in its portfolio;
- (b) Uses zero-coupon (spot) rates, or spot rates plus a spread, of the appropriate maturities to discount cash flows;
- (c) Uses implied forward interest rates to model variable rate cash flows; and,
- (d) Values embedded options using an appropriate option valuation methodology, for example Black-Scholes, Monte-Carlo, or lattice valuation methods.

Examiners may determine that an institution should use more sophisticated measurement techniques if significant supervisory concerns exist, such as a low Post-shock NPV Ratio or a high Sensitivity Measure. In any case, the institution should be familiar with the details of the assumptions, term structure, and logic used in performing the measurements.

In addition to the parallel-shock interest rate scenarios described above, OTS recommends that institutions evaluate the effects of non-parallel movements in the term structure, basis changes, or changes in interest rate volatility on this portfolio.



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